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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,564

09/01/2006

Oskar Pammer

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EXAMINER

SLIFKA, COLIN W

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

04/01/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,564	Applicant(s) PAMMER ET AL.	
	Examiner COLIN W. SLIFKA	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 7-16 is/are pending in the application.
- 4a) Of the above claim(s) 7-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Claim 1, 2, 4 and 5 in the reply filed on January 16, 2009 is acknowledged. The traversal is on the ground(s) that the groups share or more of the same or corresponding special technical features. This is not found persuasive because:

The special technical feature of Claim 1, adding returned sintered material within the longitudinal extent of a granulation drum, is not shared by Claim 7 is which the special technical feature is a granulation drum and delivery device operable to return sintered material to the mixture; and also

The shared special technical feature of a granulation drum is known in the art and does not make a contribution over the prior art, as set forth in the following rejection, therefore restriction can be made..

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komatsu et al (JP 60052533 A) in view of Noda et al (US 5,009,707), Fujimoto et al (US 4,871,393), and Feichtner et al (US 4,410,355).

Komatsu clearly teaches that iron ore powder, lime powder, and coke powder are mixed in a primary mixer and that returned ore is then added to this material and then made into pellets and sintered (Derwent abstract).

Komatsu does not specifically teach that some of the returned sintered material is added "within a longitudinal extent of a granulation drum" during the granulation process.

Noda teaches a method for manufacturing agglomerates of sintered pellets, wherein agglomerates of less than 4 mm in particle size are returned to the primary disk pelletizer and repeatedly pelletized (col. 3, lines 23-27). Noda also teaches that the returns are fed directly into the pelletizer (Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the returned ore of Komatsu directly into the pelletizer, as taught by Noda, because it is a known method of returning "unfinished" product to a pelletizer.

With respect to the limitation of adding the returned sintered material "within a longitudinal extent of a granulation drum," the longitudinal extent of a granulation drum is considered to be anywhere within the walls. No matter how the material is added, from the side, top, middle, bottom, etc., the material will have been added "within the longitudinal extent" of the granulation drum.

Komatsu does not specifically teach the use of a "granulation drum."

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Fujimoto, in a similar process of feeding sintering raw ore mix, teaches that various raw mixes are mixed and granulated by a drum mixer (col. 1, lines 30-32).

It is very possible that the secondary mixer of Komatsu was a "granulation drum," and it would have been obvious to one of ordinary skill in the art at the time of the invention to use a granulation drum mixer as taught by Fujimoto in the process of Komatsu, as both pieces of equipment additionally mix and granulate the materials of similar inventions.

With respect to the adding of the returned material to the granulation drum "during" the granulation process, it is considered that the process of Komatsu is a continuous process. Komatsu does not specifically state this, however.

Feichtner, in a similar process for controlling a pelletizing plant for fine-grained ores, teaches that with certain control processes, operating conditions can scarcely be optimized with respect to the throughput, and furthermore, such plants can only with great difficulties be started after a shut-down (col. 2, lines 3-8). It is considered that it is common practice in these processes to operate continuously, and likewise it would have been obvious to one of ordinary skill in the art at the time of the invention that the returned materials of Komatsu and Noda would be added to the granulation drum during the granulation process.

With respect to the mixing of amended claim 1, Komatsu does not specifically describe the physical aspects of the mixing process. Regardless, it is well known in the art that mixing can take place with a "mixing tool," where movement takes place between the container and the mixing tool. Additionally, it would have been obvious for

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the mixing step to be carried out in a manner that would provide desired results, and "intensive" mixing would be subject to the process specifications.

Regarding claim 2, Komatsu shows that the return ore is added to the feed line to the secondary mixer, somewhere between the primary mixer and the secondary mixer (Figure).

Regarding claim 4, Komatsu teaches that the returned sintered material can be added to the main "mixture" before the secondary mixer, and Noda teaches that the returned material can be added directly into the pelletizer. It would have been obvious to one of ordinary skill in the art at the time of the invention to add the returned sintered material at any point or points, without limiting the feed to a fixed position, between after the primary mixer to any portion of the secondary mixer, with respect to the invention of Komatsu for example.

Regarding claim 5 and as shown above, Komatsu teaches that material to be sintered, such as iron ore powder, lime powder, coke powder, which is considered a fuel, etc. are mixed with water in a primary mixer and mixed with returned ore.

Komatsu does not specifically teach the particle size of the forming granules when the fuel is added.

Noda clearly teaches that agglomerates of less than 25 mm in particle size are charged into a secondary disk pelletizer. Solid fuel is added to the secondary disk pelletizer and primary agglomerates are coated with the solid fuel whereby pellets of 5-10 mm in particle size are manufactured. Powdery coke, char, pulverized coal or the like is used as the solid fuel (col. 3, lines 29-35).

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It would have been obvious to one of ordinary skill in the art at the time of the invention to add the fuel to the material to be sintered of Komatsu when the pellets are between 5-10 mm, as taught by Noda, because it is known in the art that this is a desirable particle range, as they are both similar processes and would therefore require similar sized particles.

Response to Arguments

Applicant's amendments to claim 5 have overcome the objection to and 35 USC 112 rejection of claim 5.

Applicant's arguments, see page 6, line 21-page 7, filed January 7, 2009, with respect to the rejection(s) of claim(s) 1-6 under Komatsu et al have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Komatsu et al in view of Noda et al. Applicant's amendment of claim 1 has necessitated the new rejection, which is above.

In response to Applicant's concern with the rejection of claim 6 in the prior action, shown here:

Regarding claim 6, it is well known in the art that mixing can take place with a "mixing tool," where movement takes place between the container and the mixing tool. Additionally, it would have been obvious for the mixing step to be carried out in a manner that would provide desired results, and "intensive" mixing would be subject to the process specifications.

This rejection has been incorporated into the instant rejection of claim 1, as the limitations of cancelled claim 6 have been incorporated into claim 1 of the instant application. To expand upon this rejection, "'intensive mixing' would be subject to

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process specifications" means that because "intensive" is a relative term, the "intensity" of the mixing would be set to the process specifications so as to provide desired results. To further expand, the "intensity" of the mixing clearly depends upon the conditions of the process on a case-by-case basis and "intensive mixing" does not further limit the scope of the invention to anything more than what would be obvious to one of ordinary skill.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Myers teaches a process in which return fines are returned within the "longitudinal extent" of a pelletizer via a feed screw.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to COLIN W. SLIFKA whose telephone number is (571)270-5830. The examiner can normally be reached on Monday-Thursday, 10:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Melvin Curtis Mayes can be reached on 571-272-1234. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/COLIN W SLIFKA/
Examiner, Art Unit 1793

CS
March 22, 2009

/Melvin Curtis Mayes/
Supervisory Patent Examiner, Art Unit 1793